REMARKS

In the Office Action, claims 1-41 were rejected. More specifically:

- The Office has objected to claim 29 because of informalities;

- The Office has rejected claim 7 under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement;

- The Office has rejected claim 31 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter regarded as the invention;

- The Office has rejected claims 31, 36 and 37 under 35 U.S.C. §112, second paragraph, for insufficient antecedent basis;

- The Office has rejected claims 1-24 and 32 under 35 U.S.C. §101 as being directed to non-statutory subject matter;

- The Office has rejected claims 1, 3 and 12 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,064,985 to Anderson ("*Anderson*");

- The Office has rejected claims 2, 4, 6, 13, 14 and 16 under 35 U.S.C. §103(a) as being unpatentable over *Anderson* in view of U.S. Patent Application Publication No. 2003/0065598 to Bunda ("*Bunda*");

- The Office has rejected claim 5 under 35 U.S.C. §103(a) as being unpatentable over *Anderson* in view of Bunda and in further view of Official Notice;

- The Office has rejected claims 7, 8, 10 and 11 under 35 U.S.C. §103(a) as being unpatentable over *Anderson* in view of *Bunda* and in further view of U.S. Patent Application Publication No. 2002/0103742 to Billings ("*Billings*");

- The Office has rejected claims 9 and 15 under 35 U.S.C. §103(a) as being unpatentable over *Anderson* in view of *Bunda* in view of *Billings* and in further view of U.S. Patent No. 7,155,510 to Kaplan ("*Kaplan*");

- The Office has rejected claims 1, 4-7, 25-30, 32, 33, 34, 35 and 40 and under 35 U.S.C. §103(a) as being unpatentable over *Kaplan* in view of U.S. Patent No. 6,006,206 to Smith ("*Smith*");

- The Office has rejected claims 2 and 3 under 35 U.S.C. §103(a) as being unpatentable over *Kaplan* in view of *Smith* and in further view of U.S. Patent Application Publication No. 2004/0162742 to Stoker ("*Stoker*");

- The Office has rejected claims 8-24 under 35 U.S.C. §103(a) as being unpatentable over *Kaplan* in view of *Smith* and in further view of Official Notice;

- The Office has rejected claims 31, 36-39 and 41 under 35 U.S.C. §103(a) as being unpatentable over *Kaplan* in view of *Smith* and in further view of U.S. Patent Application Publication No. 2003/0033228 to Bosworth-Davies et al. ("*Bosworth-Davies*");

Claims 1-41 have been cancelled and claims 42-72 have been added. No new matter has been added as a result of these amendments. New independent claims 42 and 71 find support in the specification in at least paragraphs 0002, 0006-0007 (pg. 5-6), 0054-0059 (pg. 12-16) and 0058-0059 (pg. 23-24). Dependent claims 43 and 72 find support in the specification in at least paragraphs 0055-0056 (pg. 12-13) and 0065-0077 (pg. 28-33). Dependent claims 44-62 find support in the specification in at least paragraphs 00117-00344 (pg. 57-100). Dependent claims 63-64 find support in the specification in at least paragraphs 0061-0062 (pg. 17-18). Dependent claims 65-68 find support in the specification in at least paragraph 00121 (pg. 57-58). Dependent claim 69 finds support in the specification in at least paragraph 0086 (pg. 37). Dependent claim 70 finds support in the specification in at least paragraphs 0060 (pg. 16), 0088 (pg. 38) and 0095 (pg. 41). For the reasons set forth below, Applicants request that the above-listed objections and rejections be withdrawn.

Objections

Claim 29 was objected to because of informalities. Claim 29 has been cancelled. As such, Applicants respectfully request that the objection to claim 29 be withdrawn.

Rejections Under §112

Claim 7 was rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. Specifically, the Office asserts that the phrase "neural networks" was not defined in the specification. Claim 7 has been cancelled, however new claims 43 and 72 refer to neural networks, which are described in the specification in at least paragraphs 0055 (pg. 12) and 0076 (pg. 32). Accordingly, Applicants request that the §112 rejection associated with claim 7 be withdrawn.

Claims 31, 36 and 37 were rejected under 35 U.S.C. §112, second paragraph, for insufficient antecedent basis. Claims 31, 36 and 37 have been cancelled. Accordingly, Applicants request that the §112 rejections associated with claims 31, 36 and 37 be withdrawn.

Rejections Under §101

Claims 1-24 and 32 were rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter. Specifically, these claims were rejected as being abstract ideas that do not produce a tangible result. Claims 1-24 and 32 have been cancelled. New independent method claim 42 includes the limitation "determining, by a computing device, whether one or more relationships exist among the transactions and the entities that exhibit the common element," so claim 42 is tied to another statutory class. Accordingly, Applicants request that the §101 rejections associated with claims 1-24 and 32 be withdrawn.

Claim 42

New independent claim 42 is novel and nonobvious over the cited references because the cited references fail to disclose at least the following limitations of claim 42:

- accessing a scenario library to identify a detection algorithm for identifying a behavior of interest indicative of a risk to a brokerage or its investors;

- applying the detection algorithm to identify common elements between a plurality of the transactions and a plurality of the entities in the received data to determine whether the common elements are collectively indicative of the behavior of interest;

- determining, by a computing device, whether one or more relationships exist among the transactions and the entities that exhibit the common element; and

- if so, generating an alert informing a user of the related transactions and entities that exhibit the common elements.

Claim 42 is directed to a method of generating alerts by analyzing a plurality of transactions and a plurality of entities to identify one or more possible relationships between the transactions and entities. As such, multiple transactions and entities are analyzed to determine whether they are collectively indicative of a behavior of interest indicative of a risk to a brokerage or its investors.

In contrast, *Anderson* is directed to an automated portfolio management system. *Anderson* at Abstract. The system utilizes a data feed from the Internet to populate a database with portfolio information, and performs calculations using the data which it reports to a user. *Id.* at 4:18-22. *Anderson* does not disclose identifying a behavior of interest indicative of a risk to a brokerage or its investors, applying the detection algorithm to identify common elements between a plurality of the transactions and a plurality of the entities in the received data, determining whether one or more relationships exist among the transactions and the entities and generating an alert as required by independent claim 42.

Similarly, *Bunda* fails to disclose every limitation of claim 42. *Bunda* is directed to a method of providing trader alert notifications and automated trades. *Bunda* at [0002]. For example, the *Bunda* system receives market price information regarding a security and determines if a market price meets a trigger condition. If so, a notification is sent to a trader

informing him of the price change. As with *Anderson*, *Bunda* does not disclose identifying a behavior of interest indicative of a risk to a brokerage or its investors, applying the detection algorithm to identify common elements between a plurality of the transactions and a plurality of the entities in the received data, determining whether one or more relationships exist among the transactions and the entities and generating an alert as required by independent claim 42.

Likewise, *Billings* fails to disclose every limitation of claim 42. *Billings* is directed to a system for providing downside protection of stock market investments. *Billings* at Abstract. The system determines a sell threshold price for a security and when the market price is less than the sell threshold price, the system notifies the user or automatically sells the security. *Id.* Like *Anderson* and *Bunda*, *Billings* does not disclose identifying a behavior of interest indicative of a risk to a brokerage or its investors, applying the detection algorithm to identify common elements between a plurality of the transactions and a plurality of the entities in the received data, determining whether one or more relationships exist among the transactions and the entities and generating an alert as required by independent claim 42.

Moreover, *Kaplan* fails to disclose every limitation of claim 42. *Kaplan* is directed to a system for predicting and forecasting stock prices. *Kaplan* at 4:21-25. As with *Anderson*, *Bunda* and *Billings*, *Kaplan* does not disclose identifying a behavior of interest indicative of a risk to a brokerage or its investors, applying the detection algorithm to identify common elements between a plurality of the transactions and a plurality of the entities in the received data, determining whether one or more relationships exist among the transactions and the entities and generating an alert as required by independent claim 42.

Similarly, *Smith* fails to disclose every limitation of claim 42. *Smith* is directed to a system for detecting outdated financial information to prevent losses due to user reliance on

outdated information as well as the loss of confidence in the Reuters financial information network. *Smith* at 22-32. Like *Anderson, Bunda* and *Billings* and *Kaplan, Smith* does not disclose identifying a behavior of interest indicative of a risk to a brokerage or its investors, applying the detection algorithm to identify common elements between a plurality of the transactions and a plurality of the entities in the received data, determining whether one or more relationships exist among the transactions and the entities and generating an alert as required by independent claim 42.

Likewise, *Stoker* fails to disclose every limitation of claim 42. *Stoker* is directed to a data integration method for providing information that enables businesses to make decisions. *Stoker* at paragraph 0007. Like *Anderson, Bunda* and *Billings, Kaplan* and *Smith, Stoker* does not disclose identifying a behavior of interest indicative of a risk to a brokerage or its investors, applying the detection algorithm to identify common elements between a plurality of the transactions and a plurality of the entities in the received data, determining whether one or more relationships exist among the transactions and the entities and generating an alert as required by independent claim 42.

Similarly, *Bosworth-Davies* fails to disclose every limitation of claim 42. *Bosworth-Davies* discloses a system and method for identifying a potentially irregular financial transaction. *Bosworth-Davies* at 0009. The system in *Bosworth-Davies* applies a set of rules to <u>a transaction</u> to determine if the transaction is suspicious. *Id.* at 0037. As such, *Bosworth-Davies* merely applies one or more rules to a single transaction to determine whether that single transaction is suspicious, and does not disclose identifying a behavior of interest indicative of a risk to a brokerage or its investors, applying the detection algorithm to identify common elements between a plurality of the transactions and a plurality of the entities in the received data,

determining whether one or more relationships exist among the transactions and the entities and generating an alert as required by independent claim 42.

For at least these reasons, claim 42 is novel and nonobvious over *Anderson, Bunda, Billings, Kaplan, Smith, Stoker and Bosworth-Davies*. For similar reasons, claims 43-70, which depend from and incorporate all of the limitations of claim 42, are novel and nonobvious over the cited references. Accordingly, claims 42-70 are allowable over the prior art of record.

Claim 71

New independent claim 71 is novel and nonobvious over the cited references because the cited references fail to disclose at least the following limitations of claim 71:

- accessing a scenario library to identify a detection algorithm for identifying a behavior of interest indicative of a risk to a brokerage or its investors;

- applying the detection algorithm to identify common elements between a plurality of the transactions and a plurality of the entities in the received data to determine whether the common elements are collectively indicative of the behavior of interest;

- determining, by a computing device, whether one or more relationships exist among the transactions and the entities that exhibit the common element; and

- if so, generating an alert informing a user of the related transactions and entities that exhibit the common elements.

For reasons similar to those set forth above with respect to claim 42, Applicants submit that independent claim 71 is novel and nonobvious over *Anderson, Bunda, Billings, Kaplan, Smith, Stoker and Bosworth-Davies*. Claim 72, which depends from and incorporates all of the limitations of claim 71, is also novel and nonobvious over the cited references. Accordingly, claims 71 and 72 are allowable over the prior art of record.

All of the stated grounds of rejection have been properly traversed, accommodated or rendered moot. Applicant therefore respectfully requests that the USPTO reconsider and withdraw all presently outstanding rejections. There being no other rejections, Applicant respectfully requests that the current application be allowed and passed to issue.

If the Examiner believes for any reason that personal communication will expedite prosecution of this application, I invite the Examiner to telephone me directly.

SUMMARY

The Commissioner is hereby authorized to charge any additional fees which may be required for this Amendment and Response, or credit any overpayment, to deposit account no. 50-0436.

Respectfully submitted,

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